

State of California
Regional Water Quality Control Board
San Diego Region

EXECUTIVE OFFICER SUMMARY REPORT
August 16, 2006

ITEM: 12

SUBJECT: New NPDES Permit: Poseidon Resource Corporation,
Carlsbad Desalination Project, (NPDES Permit No.
Ca0109223) (Tentative Order No. R9-2006-0065) (*Charles
Cheng*)

PURPOSE: To consider adoption of revised tentative Order No. R9-2006-0065, which would establish waste discharge requirements for the discharge of combined concentrated saline waste seawater and filter backwash wastewater from the Carlsbad Desalination Project (CDP) into the Pacific Ocean via the Encina Power Station's (EPS) cooling water discharge channel.

PUBLIC NOTICE: A newspaper notice regarding tentative Order No. R9-2006-0065 was published in the San Diego Union-Tribune, and the Register of Orange County on May 8, 2006. A copy of the tentative Order No. R9-2006-0065 was e-mailed and sent to the discharger (via certified mail), and all interested parties on May 8, 2006. Revisions to the tentative Order were sent to the discharger, and interested persons were notified by letter dated July 6, 2006 that the revised tentative Order and responses to comments made during the public comment period were posted on the Regional Board website. (Supporting Document No. 8).

DISCUSSION: On June 14, 2006, this Regional Board conducted a public hearing to consider the tentative Order and comments received about Poseidon Resource Corporation's proposal to discharge up to 57 million gallons per day of combined concentrated saline waste seawater and filter backwash wastewater from into the Pacific Ocean via the Encina Power Station's cooling water discharge channel. This project consists of diverting a portion (approximately 100 million gallons per day (MGD)) of the Power Station's returning cooling seawater to produce up to 50 MGD of potable water.

In response to the comments received, the Regional Board decided to postpone that adoption of the tentative Order to

allow time to propose necessary changes to the tentative Order, and to provide interested persons with an opportunity to comment on those proposed changes.

Significant comments pertaining to water quality issues have been summarized in a table contained in Supporting Document No. 9. All comments listed in this table were received on or prior to the June 14th Board meeting. Also presented in the table are the written responses to each issue, and a reference to the section in the tentative Order or Fact Sheet where revisions were made to address a particular issue. These changes to the tentative Order are highlighted with the insertions in underline and deletions in strikethrough.

As part of the revisions, Table 12 has been added to the Fact Sheet (pages F-18 through F-21 of Supporting Document No. 7). Table 12 provides a summary of the substantial findings in the Environmental Impact Report related to water quality. Although the action to adopt an NPDES permit is exempt from the provisions of the California Environmental Quality Act, the information has been provided for the Regional Board's consideration in adoption of the tentative Order.

The agenda notice for this item informs the public that only comments on the recommended changes to tentative waste discharge requirements will be accepted. These changes include the following:

1. Allow the discharger to temporarily discharge up to 129 MGD of unused pretreated or product water to the ocean during initial start-up operations, immediately before or after maintenance operations, or periods when it is not feasible to deliver product water to the regional potable water system. Tentative Order No. R9-2006-0065 requires the discharger to conduct additional monitoring during these temporary periods to make sure that effluent limits and performance goals are complied during all discharging conditions.
2. The discharge of CDP effluent shall not cause the combined EPS/CDP effluent, measured at monitoring location M002, to exceed average daily salinity

concentration of 40 ppt or a maximum hourly salinity concentration of 44 ppt.

3. Require the discharger to conduct two Salinity and Acute Toxicity studies.
4. Require the discharger to submit a Flow, Entrainment and Impingement Minimization Plan.
5. Require the discharger to conduct Receiving Water Violation Assessment in the event of violation of any receiving water requirements.
6. Require the discharger to submit a plan detailing continuous salinity monitoring and instrument calibration.
7. Establish procedures for acute toxicity test on samples collected at monitoring location M001 by adjusting salinity concentration to 40 ppt.

KEY ISSUES:

1. Adoption of Tentative Order No. R9-2006-0065 can be independent from the renewal of Encina Power Station's NPDES permit.
2. Clean Water Act Section 316(b) is not applicable to desalination plant. However, CDP is subject to California Water Code Section 13142.5(b) regulation which requires industrial facilities using seawater for processing to use the best available site, design, technology, and mitigation feasible to minimize impacts to marine life. In the event that the EPS were to cease operations, and the discharger were to independently operate the seawater intake and outfall for the benefit of the CDP, such independent operation will require additional review pursuant to Water Code Section 13142.5(b).
3. Tentative Order No. R9-2006-0065 establishes salinity effluent limits to prevent salinity-related toxicity.
4. Tentative Order No. R9-2006-0065 establishes requirements necessary to meet Ocean Plan water quality objectives.

LEGAL CONCERNS:

None.

SUPPORTING DOCS:

1. Tentative Order No. R9-2006-0065.
2. Attachment A – Definitions and Acronyms
3. Attachment B – Location Map
4. Attachment C- Flow Schematic
5. Attachment D-Federal Standard Provisions
6. Attachment E-Monitoring and reporting Program
7. Attachment F- Fact Sheet
8. July 6, 2006 Transmittal Letter with Interested Parties List
9. Responses to Significant Water Quality Related Comments Received On or Before June 14, 2006

SIGNIFICANT CHANGES: None.

RECOMMENDATION: Adoption of Tentative Order No. R9-2006-0065 is recommended.